

Work Order ID 108716

108716

Page 1

October-29-13 9:51:56 AM

Item ID: 649.5311

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Upper Deflector

Stop *NS2*

Start Date: 11/05/13 Start Qty: 12.00

12

Cust Item ID:

Required Date: 11/05/13 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 13-11-01 Tooling:

Date:

Run Start *NR1*

QC: Date: SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
649.5300	C

100 0.00

100 BAND SAW

Bandsaw Memo 0.00

Jeaspa Bandsaw Cut Blank at 23.85"

*** ONE BLANK MAKES TWO PARTS***

6 6 174 13/12/27

110 0.00

110 HAAS CNC VERTICAL MACHINING #1

HAAS I Memo 0.00

HAAS CNC vertical machine #1 I-Machine per folio FB213

DWG REV: C

FOLIO REV: AA

2- deburr and break all sharp edges

DR
14-01-08

12 6

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
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<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Work Order ID 108716

108716

Page 2

October-29-13 9:51:56 AM

Item ID: 649.5311

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Upper Deflector

Start Date: 11/05/13 Start Qty: 12.00

12

Cust Item ID:

Required Date: 11/05/13 Req'd Qty: 12.00

12

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

DR
14-01-08

12 ~~0~~

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

12 ~~0~~

DAS
40
9-89

14/01/12

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

0.00

Outsource process - Anodize

Issue P/O to ATG : 22664

1- Black Anodize as per Dwg 649.5300

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Conformity is required

CS 14/01/17 (12)

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
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Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
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<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Work Order ID 108716

October-29-13 9:51:56 AM

108716

Page 3

Item ID: 649.5311

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Upper Deflector

Start Date: 11/05/13 Start Qty: 12.00

12

Cust Item ID:

Required Date: 11/05/13 Req'd Qty: 12.00

12

Customer:

Reference:

Run Start ***NR1***

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop ***NR2***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150 Receive & Inspect for Damage & Mat'l Certs 0.00

150

Packaging

Memo

0.00

Packaging

44/4/30 (12)

155 QC5- Inspect part completeness to step on W/O 0.00

155

QC

Memo

0.00

Quality Control

12 *W/M 14.02.03*

180 Identify as per dwg & Stock Location: *composites* 0.00

180

Packaging

Memo

0.00

Packaging

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

12 *DAS 05 14.02.03*

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
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Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

Work Order ID 108716***108716***

Page 4

October-29-13 9:51:56 AM

Item ID: 649.5311

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Upper Deflector

Start Date: 11/05/13 Start Qty: 12.00

12

Cust Item ID:

Required Date: 11/05/13 Req'd Qty: 12.00

12

Customer:

Reference:


Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									

ML5 14-02-04
 14-02-03

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
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Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
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<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misabeled
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<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
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		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

Picklist Print

October-29-13 9:51:55 AM

Page 1

Work Order ID: 108716

Parent Item: 649.5311

Parent Item Name: Upper Deflector

Start Date: 11/05/13

Required Date: 11/05/13

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV A NEW ISSUE R.Q. 13/10/03 VERIFIED BY: JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B0.375X6.000		Purchased	No			100	f	16.0000	0.994	12.55579			
7075-T6 BAR 0.375" X 6.000"													

Location

Loc Qty

Loc Code

MAT049

16

123611

16

11 127539

12

MH

13/12/27

X

could'nt
Mat.

removed

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

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Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
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Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
---	---	--

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 04057

SHEET 1 OF 1

DWG NO. 649.5300

REV: B

PREPARED
BY

D. PETERS

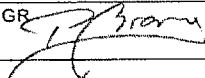
DATE: 08/13/13

EFFECT ON DWG
☒ INC. ☐ UNINC.

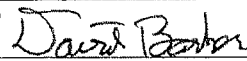
DWG TITLE: DEFLECTORS

APPROVED BY:

ENGR



MFG



QC



EFF:

NEXT ORDER

TRANSACTION CODES (TC):

A-ADD C-CREATE

R-REVISE D-DELETE

REASON: MARKED INSPECTION DIMENSIONS

ECR:

NONE

108716 MCL
13-11-01

DOCUMENTS EFFECTED:

☐ RFMS ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ BOM

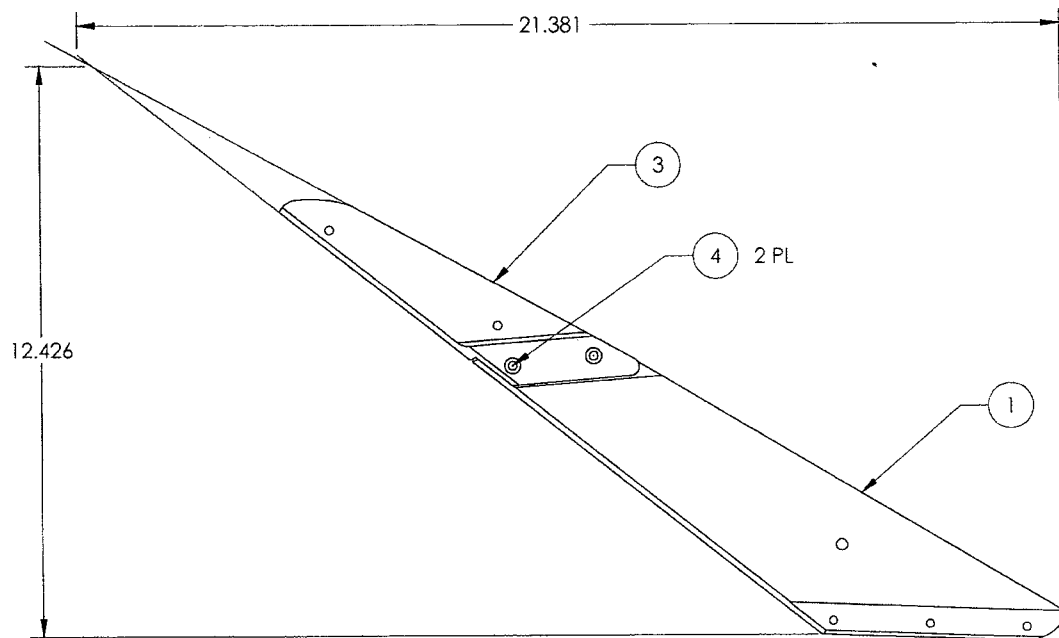
CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

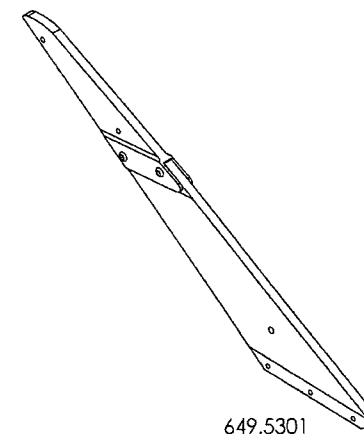
108716

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- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAA MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;
PRE TREAT PRC-DESOTO PR-148 ADHESION PROMOTER;
PRIMER IAW MIL-P-23377J TYPE I CLASS N; 1-2 MIL MAX
- 3 DEBURR AND BREAK ALL SHARP EDGES
- 4 IDENTIFY IAW MPP-120
- 5 APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 & 3 UPON ASSY



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION: PRI		N/A
N/C	INITIAL RELEASE	12/06/11	P. BRAVO
A	INCORPORATED ECHS 02413, 03471 AND 02485	04/16/12	P. BRAVO
B	INCORPORATED ECH 03532	05/23/12	P. BRAVO
C	INCORPORATED ECH 04057	08/13/13	P. BRAVO

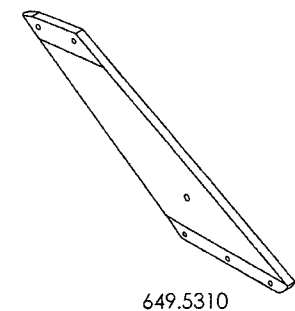
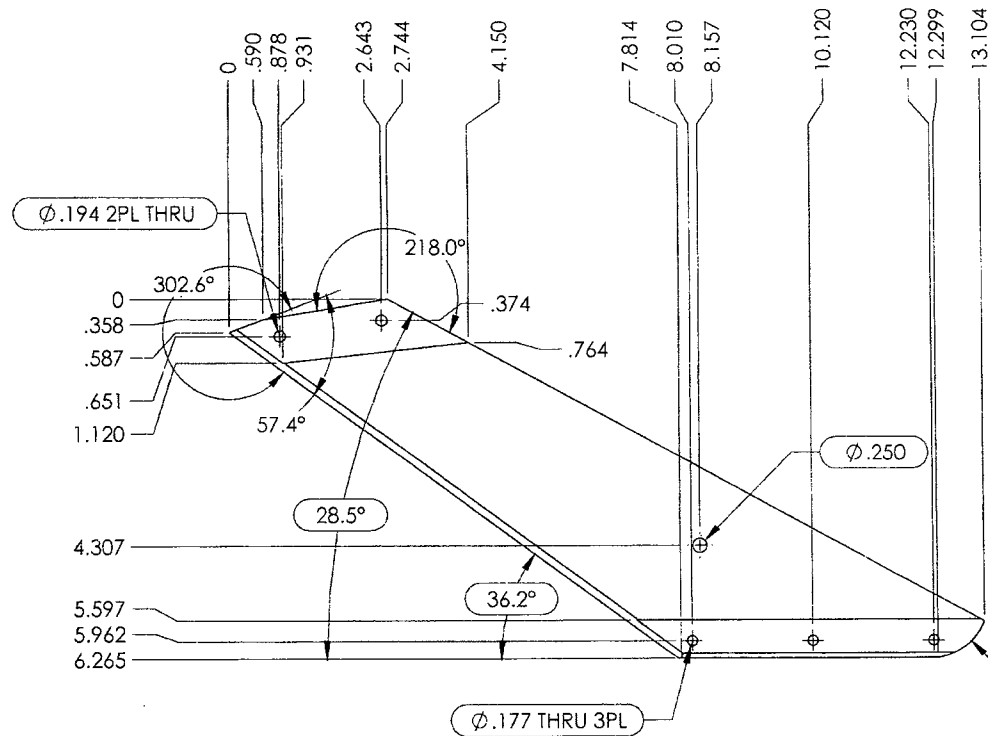


A/R	5	601.2045	RTV, LOCTITE 598		5
2	4	601.3074	RIVET	MS20470AD6-12	
1	3	649.5312	BREAKAWAY TIP		1 2
	2	649.5311	UPPER DEFLECTOR		1 2
	1	649.5310	LOWER DEFLECTOR		1 2
		649.5301	DEFLECTOR ASSY		
.5301	HIND #	PART #	DESCRIPTION	MAT'L	SPEC.
QTY			PARTS LIST		
NEXT ASSY (S)			APICAL INDUSTRIES		
649.4900			2608 TEMPLE HEIGHTS DR.		
			OCEANSIDE, CA. 92056-3512 (760)724-5300		
			DEFLECTORS		
			UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		
			TOLERANCES ARE:		
			3 PLACES DECIMALS ±.003		
			1 PLACE DECIMALS ±.005		
			ANGLES ±.5°		
			SCALE NONE		
			SHEET 1 OF 4		

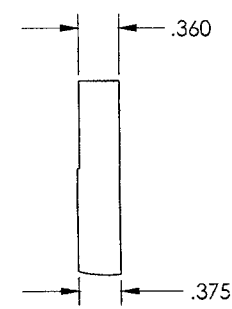
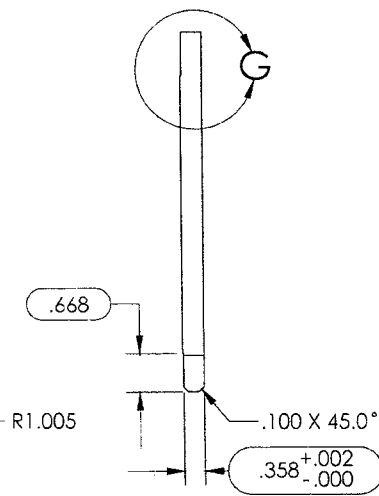
108716

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A
B
C
D



649.5310



DETAIL G

ORIGINAL DATE: DATE: 08-11-11		APICAL INDUSTRIES	
DRAWN BY: J. BRADY		2608 TEMPLE HEIGHTS DR.	
A. QUINN		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
INSTRUMENT APPROVAL:		DEFLECTORS	
F. BRADY			
CHECKED:			
CONTRACTING:			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACES DECIMALS ±.005 3 PLACES DECIMALS ±.010 ANGLES ±.5°		SHEET: 07/01/16	DWG NO: 649.5300
		SCALE: NONE	SHEET: 2 OF 4

108716

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.13 X 45° 2PL

SECTION C-C

Ø.177 THRU 3 PL

.30 X 23.0°

R1.100

2.109±.002

4.219±.002

DETAIL A

.375

17.93

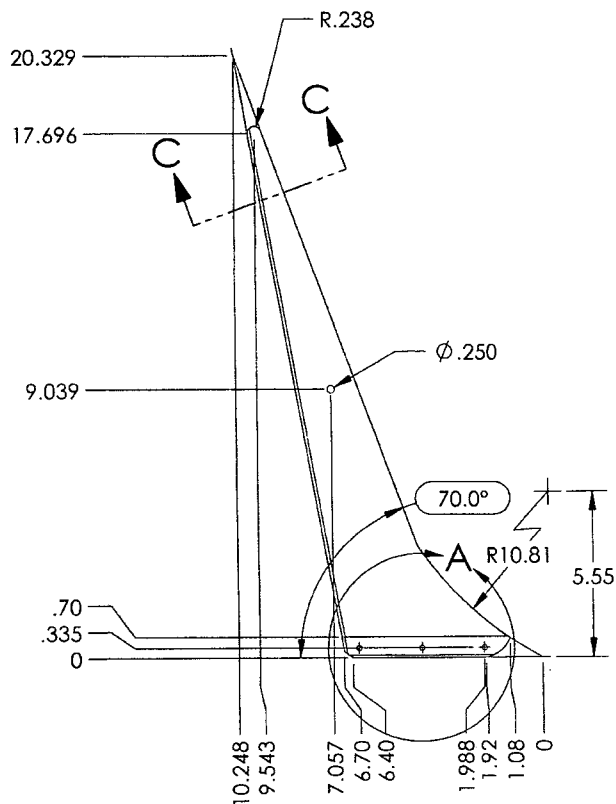
.701

.04 X 45.0° 2PL

.358^{+.000}_{-.002}

DETAIL B

649.5311



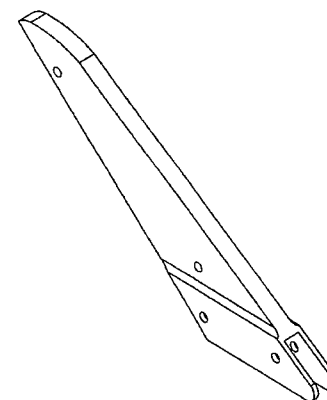
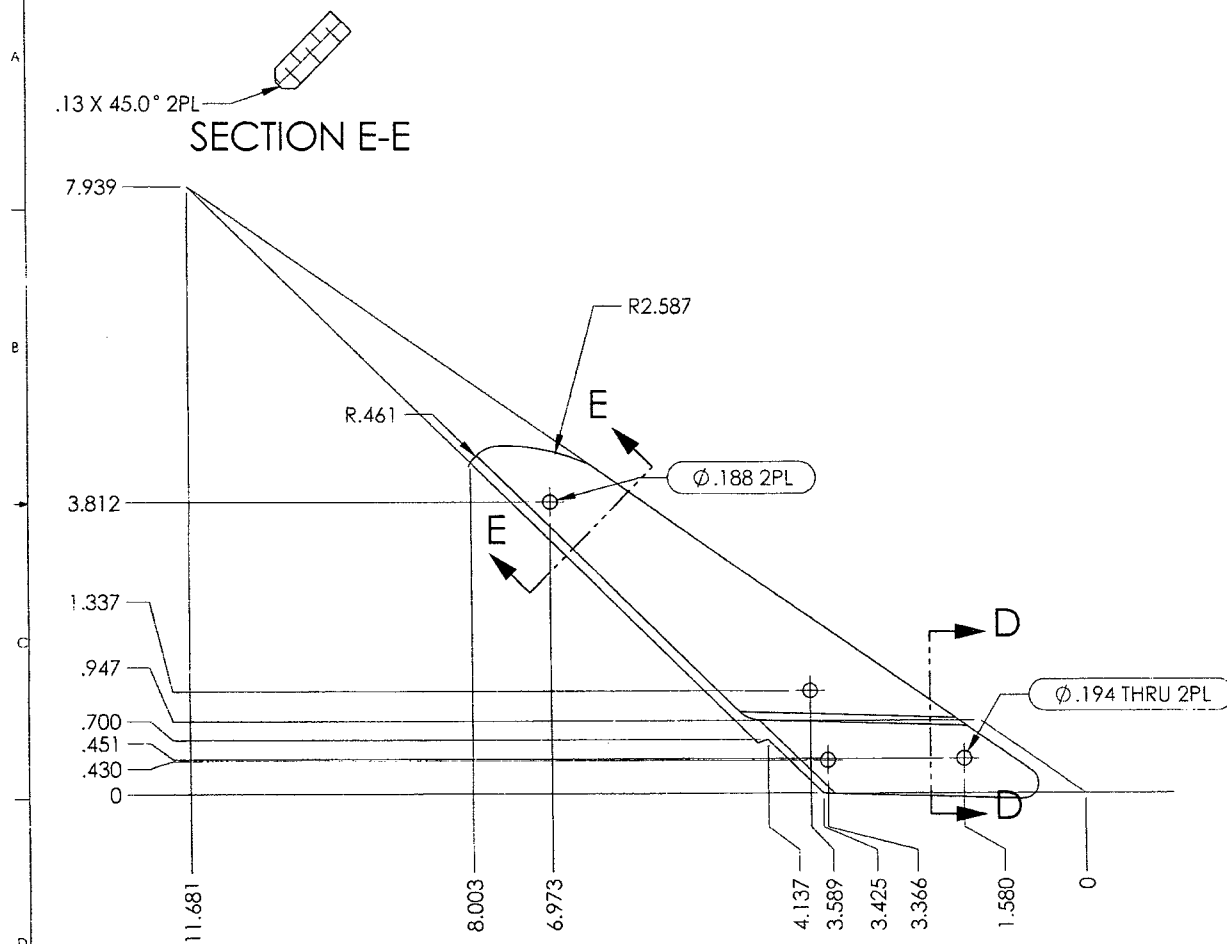
ORIGINAL DATE 12/05/11		12/05/11	
DRAWN BY A. QUINN	CHECKED P. BRADY		
DRAWING APPROVAL P. BRADY 12/05/11			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS 2.00 3 PLACE DECIMALS 2.010 ANGLES ± .5°			
SHEET B	CAGE CODE 07M26	DWG. NO. 649.5300	REV. C
SCALE NONE		SHEET 3 OF 4	

APICAL INDUSTRIES

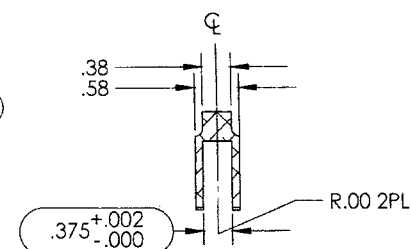
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

DEFLECTORS

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AFICAL INDUSTRIES ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF AFICAL INDUSTRIES IS PROHIBITED.



649.5312



SECTION D-D

ORIGINAL DTH (BGC-214) (F) (2-26-11) DRAWN BY: J. CRECHER CHECKED BY: J. CRECHER DATE: 11-26-11 DRAWING APPROVAL: P. REAVS P. 00-11 CONTRACT No.		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
		DEFLECTORS	
THE 152 CHIMNEY SPECIFIC DIMENSIONS ARE IN INCHES DIMENSIONS ARE IN 1. FLUE DIMENSIONS 2 OD 2. PLANT DIMENSIONS 2 GID		STA. 07/216 SCALE NONE	DWG. NO. 649.5300 SHEET 4 OF 4

Jean-Luc Menard

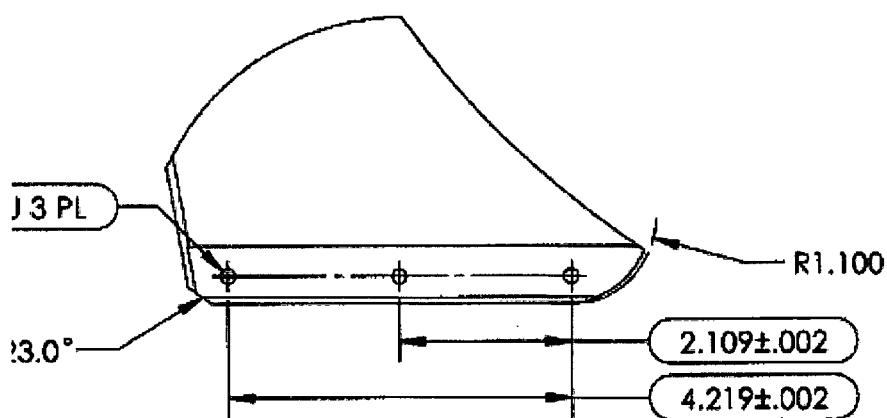
From: Pablo Bravo
Sent: January-07-14 8:30 PM
To: Jean-Luc Menard
Subject: RE: Deviation acceptable? 649.5311

JL,
This should be acceptable.

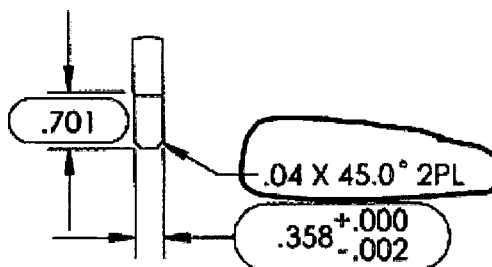
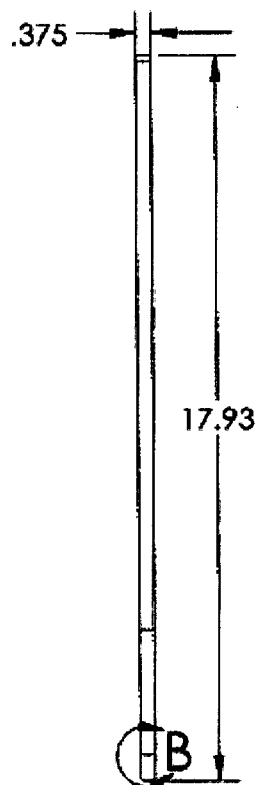
Pablo

From: Jean-Luc Menard
Sent: Tuesday, January 07, 2014 9:45 AM
To: Pablo Bravo
Subject: Deviation acceptable? 649.5311

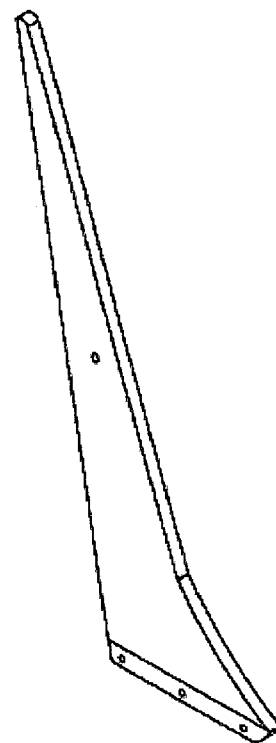
Hi Pablo,
Happy new year!
Got two parts that are off when we were proofing the nc program.
Chamfer measures .100" instead of .040" on one side only at the bottom.
Let me know if we can pass these pls.
THX
JL



DETAIL A



DETAIL B



649.5311

ORIGINAL DATE	12-06-11
DESIGNED BY	CHECKED
DRAWN BY	BY

APICAL INDUSTRIAL
2600 TEMPLE E HIGHWAY 100

Jean-Luc Ménard
Production Engineering Supervisor

DART AEROSPACE
T 1 613 632-5200 > 227
F 1 613 632-5246
1 800 556- 4166
www.dartaerospace.com



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62866

Date: 30-Jan-14

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To


DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description		
1 lot	Part: ASST Rev: 4 PCS 646.9812 (18.15) 12 PCS 649.5310 (11.45) 12 PCS 649.5311 (20.65) 6 PCS 647.9414 (10.30) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PRICE IS PER PIECE Job: 20140080 PO: 22664 Line:		
Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE: 30/1/14 CERTIFIED SIGNATURE:  RECEIVER SIGNATURE: _____			



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO22664

Purchase Order Date 1/17/2014

PO Print Date 1/30/2014

Page Number 2 of 3

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

VENDOR'S TRUCK

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

Line Total: \$44.20

4	110641	647.0410 TUBE	1/27/2014 Yes 1/27/2014	4.00	\$11.05	\$44.20
AS ABOVE RUSH ORDER						

Line Total: \$44.20

5	108843	649.5310	1/27/2014 Yes 1/31/2014	12.00	\$11.45	\$137.40
AS ABOVE						

Line Total: \$137.40

6	108716	649.5311 UPPER DEFLECTOR	1/27/2014 Yes 1/31/2014	12.00	\$20.65	\$247.80
AS ABOVE						

Note:

1/30/2014